## Procedure

Weigh 0.2 g of the sample into the digestion vessel. Add 5 mL of HNO$_3$ and 5 mL of H$_2$SO$_4$. Gently swirl to mix the sample particles in the acid. Slowly and carefully add 5 mL of HF. Gently swirl the mixture and wait approximately 15 minutes before closing the vessel.

Allow any initial reaction to subside before sealing vessel.

## Notes

This application can only be run in the iPrep vessel.

This procedure uses hydrofluoric acid. If it is necessary to complex the residual hydrofluoric acid or redissolve insoluble fluorides formed, an additional complexation step with boric acid or other neutralization step should be used. This procedure can be found in the One Touch Method note entitled "BoricAcid HF Neutralization".

Reducing the particle size increases the efficiency of digestion and may decrease the digestion time.

| Recommended Equipment | Recommended Vessels | Reagents |
|---|---|---|
| MARS 6 iWave | iPrep | HNO$_3$<br>H$_2$SO$_4$<br>HF |

| Max Sample Weight | Sample Type | Control Type | Method Type |
|---|---|---|---|
| 0.2 g | Organic | Ramp to Temperature | One Touch |

## Heating Program

| Stage | Temp (°C) | *Ramp (mm:ss) | Hold (mm:ss) | Pressure (psi) | * Power (W) | Stirring |
|---|---|---|---|---|---|---|
| 1 | 270 | 30:00 | 30:00 | 800 | 700-1800 | Off |

* Ramp times and power may vary depending on the type and number of vessels.

## Results

Sample was clear, colorless, and particle free upon dilution to 50 mL.

## General Precaution

a) This procedure is a reference point for sample digestion using a CEM system and may need to be modified or changed to obtain the required results on your sample.
b) If using a vessel other than the recommended choice, adjust sample size and pressure limit to values appropriate for the vessel chosen.
c) Manual venting of CEM vessels should be performed when wearing hand/eye/body protection and when the vessel contents are at or below room temperature to avoid the potential for chemical burns. Always point the vent hole away from the operator.
d) If programming as One Touch, the ramp time and power will be automatically determined based on the number and type of vessels detected.
e) If using HF, follow restrictions listed in HF Addendum.